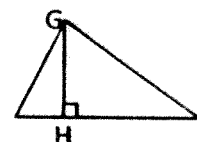
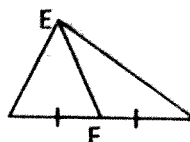
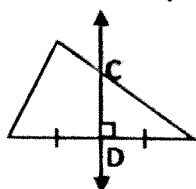
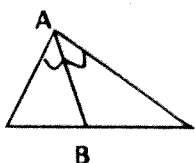
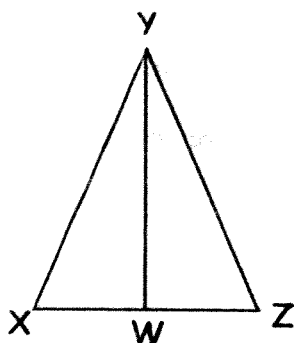


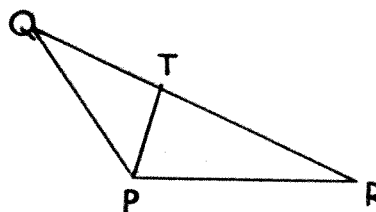
1. Identify each segment as a median, altitude, perpendicular bisector or angle bisector.



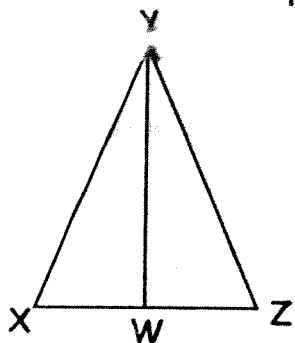
2. If \overline{YW} is the \perp bisector of \overline{XZ} ,
 $XW = 2x + 4$, $WZ = x + 6$, $XY = 3y$,
 and $YZ = 2y + 8$, then find x and y .



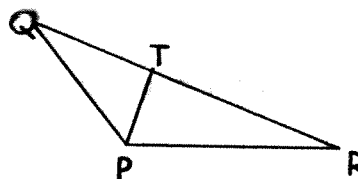
3. If \overline{PT} is the angle bisector of $\angle QPR$,
 $m\angle QPT = 3x - 1$ and
 $m\angle QPR = 100$, then find x and
 $m\angle QPT$.



4. If \overline{YW} is the median of \overline{XZ} ,
 $XZ = 8x - 40$ and $WZ = 20$,
 then find x .

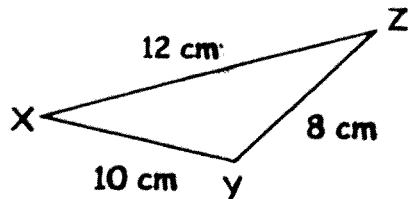


5. If \overline{PT} is an altitude of $\triangle QPR$,
 $m\angle PTR = 3x + 15$, then find x .



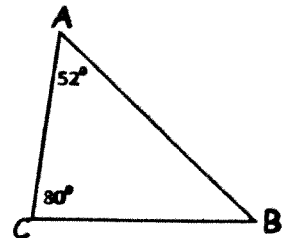
7. The largest angle is \angle _____

The smallest angle is \angle _____



8. The shortest side is _____

The longest side is _____



Are these sides of a triangle?

9. 1, 2, and 3

10. 7.5, 4.5, and 3.2

11. 5.5, 3.75, 9.25

Find the possible measures for the 3rd side of a triangle when the 2 sides are given.

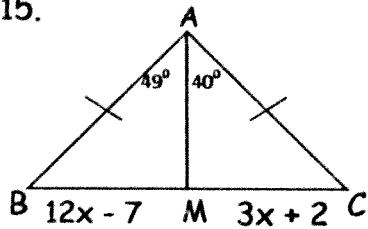
12. 2, 3

13. 8, 10

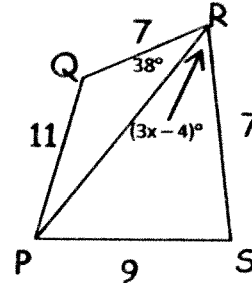
14. Curtis City is 60 miles NE of Angel Falls. Davis Springs is 40 miles SE of Angel Falls. Is it possible that Curtis City and Davis Springs are less than 100 miles apart? Justify your answer.

Write a set of inequalities to describe a restriction on the value of x .

15.



16.



17. AB _____ AC

